

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2005-_____
ADMINISTRATIVE CIVIL LIABILITY ORDER
IN THE MATTER OF

CITY OF TRACY
SAN JOAQUIN COUNTY

This Order for Administrative Civil Liability is issued to the City of Tracy, (hereafter Discharger) based on a finding of violations of NPDES Waste Discharge Requirements Order No. 96-104, pursuant to California Water Code (CWC) section 13385, which authorizes the imposition of Administrative Civil Liability.

The Regional Water Quality Control Board, Central Valley Region (Regional Board) finds, with respect to the Discharger's acts, or failure to act, the following:

1. The Discharger owns and operates the City of Tracy Wastewater Treatment Plant and accompanying collection and disposal systems, which provide sewerage service to the City of Tracy. Treated municipal wastewater is discharged to Old River, a water of the United States, and part of the Sacramento-San Joaquin Delta.
2. On 3 May 1996 the Regional Board adopted Waste Discharge Requirements Order No. 96-104 (NPDES No. CA0079154) prescribing waste discharge requirements for the City of Tracy Wastewater Treatment Plant.
3. On 21 October 2003 the City of Tracy Wastewater Treatment Plant experienced a failure of the sulfur dioxide (SO₂) feed system, which provides dechlorination of the effluent prior to final discharge to Old River. This resulted in the discharge estimated to be approximately 585,000 gallons of chlorinated effluent to Old River, over a 95 minute period, with an average chlorine residual of 6.7 mg/L.
4. The Discharger failed to properly document the nature and impact of the chlorine release on the receiving water. Although the Discharger reported that no adverse effects to aquatic life were observed and their monitoring indicated a chlorine residual of <0.1 mg/L in Old River, the Discharger waited 13 hours after the discovery of the release before visually inspecting the receiving water and waited 19 hours to collect in-stream samples for total chlorine residual. Due to the slow response and inadequate monitoring, the effect of the chlorine release on aquatic life is not known.
5. The discharge violated Section B.1 of the Effluent Limitations of Order No. 96-104, which includes a daily maximum effluent limitation for chlorine residual of 0.1 mg/L. The discharge was reported to contain an average total residual chlorine of 6.7 mg/L.
6. The discharge violated Section E.4 of the Receiving Water Limitations of Order No. 96-104. Section E.4 states, "the discharge shall not cause concentrations of any materials in the receiving waters which are deleterious to human, aquatic, or plant life". The USEPA

National Ambient Water Quality Criteria for chlorine residual to prevent acute (lethal) effects to aquatic life is 0.019 mg/L, on a 1-hour average. The effluent had a concentration more than three hundred fifty (350) times the acute criterion. The discharge would have caused the receiving water to greatly exceed the acute criterion at the outfall, and potentially for a considerable distance downstream, because given the concentration of the effluent, it could not have mixed with the receiving water quickly enough to be diluted below the acute criterion.

7. The Discharger violated Standard Provision A.17 of Order No. 96-104, which states:

“The discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge or sludge use or disposal.”

The Discharger failed to properly document the nature and impact of the chlorine release by not acting immediately after discovery of the release.

- a) The Discharger waited 13 hours after the release to visually inspect the receiving water;
- b) The Discharger waited 19 hours after the release to collect in-stream samples for total chlorine residual.

8. The discharge violated Provision F.1 and Standard Provision A.22 of Order No. 96-104, which require that neither the discharge nor its treatment shall create a nuisance or pollution as defined in CWC section 13050. The discharge of highly chlorinated effluent at levels that exceed the effluent limitations constitutes pollution.

9. CWC section 13385 states, in part:

“(a) Any person who violates any of the following shall be liable civilly in accordance with this section:

(1) Section 13375 or 13376.

(2) Any waste discharge requirements...issued pursuant to this chapter...”

“(5) Any requirements of Section 301, 302, 306, 307,308, 318, 401, or 405 of the Clean Water Act, as amended”.

“(c) Civil liability may be imposed administratively by the state board or a regional board pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 in an amount not to exceed the sum of both of the following:

- (1) Ten thousand dollars (\$10,000) for each day in which the violation occurs.

(2) Where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons”.

“(e) In determining the amount of any liability imposed under this section, the regional board, the state board, or the superior court, as the case may be, shall take into account the nature, circumstances, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue its business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters that justice may require. At a minimum, liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation”.

10. The violation of Effluent Limitations B.1, for chlorine residual, is subject to mandatory minimum penalties pursuant to CWC section 13385(h). However, due to the severity of the violation a more substantial liability was imposed considering the State Water Resources Control Board’s Water Quality Enforcement Policy and the factors in Water Code section 13385(e).
11. The mandatory minimum penalty applicable to this discharge is \$3,000. The maximum statutory liability is \$5,850,000 (\$10,000 for each day of violation plus approximately \$5,840,000; \$10 times 584,000 gallons).
12. The Regional Board determined, with respect to the factors in Finding 9, the following:

Nature of violation: The SO₂ feed system failed, allowing approximately 585,000 gallons of highly chlorinated effluent to be discharged to Old River, which is acutely toxic to aquatic organisms. The magnitude of the release could have been significantly reduced or avoided if the Wastewater Treatment Plant utilized adequate controls or redundancy to prevent the release of chlorinated effluent. Other violations resulted from failing to provide proper notification of the discharge or monitoring of the impacts.

Circumstances: The Discharger reported that the SO₂ feed system failure went undetected for approximately 95 minutes, during which the Wastewater Treatment Plant discharged highly chlorinated effluent. The on-duty operator discovered the SO₂ feed system malfunction during routine 2-hour rounds and immediately restored SO₂ flow to the plant effluent. The Discharger failed to maintain adequate controls or redundancy to prevent this release of chlorinated effluent. The Discharger also failed to maintain adequate standard operating procedures and emergency/contingency plans for responding to the release of highly chlorinated effluent. The Discharger did not adequately respond to the violation by

failing to adequately assess the impacts to the receiving water and failing to properly notify state and local officials.

Due to the remote location of the outfall and the time of the release being at night, it may have been difficult and possibly dangerous for the Discharger to immediately assess the effect of the chlorine release on the local biota. But, a more thorough inspection was warranted and required. The Discharger visually inspected the receiving water by boat at 0930 hours the following day and conducted routine monitoring, collecting water quality samples for temperature, dissolved oxygen, pH, turbidity, and conductivity. However, they failed to evaluate the samples for chlorine residual. The Discharger waited until 1319 hours to report the violation to the Regional Board. Regional Board staff ordered the Discharger to collect water quality samples for chlorine residual and also ordered it to notify the State Office of Emergency Services (OES). The Discharger notified OES at 1504 hours and collected samples for chlorine residual at 1545 hours. The Discharger's lack of urgency surrounding the highly toxic release of chlorine illustrates that its standard operating procedures and emergency/contingency plans were deficient.

Gravity: The receiving water is significantly impaired. Old River and the Sacramento-San Joaquin Delta are listed as impaired under section 303(d) of the federal Clean Water Act and identified as "Toxic Hot Spots," pursuant to the Bay Protection and Toxic Hot Spot Cleanup Program. The large release of chlorine, at levels that would be acutely toxic to aquatic life, is likely to have caused significant adverse impacts on the receiving water.

Toxicity/Extent: Chlorine is acutely toxic to aquatic life. The USEPA National Ambient Water Quality Criteria to prevent acute (lethal) effects from chlorine is 0.019 mg/L, on a 1-hour average. The effluent had a concentration more than three hundred fifty (350) times the acute criterion, and was discharged for approximately 95 minutes. The discharge caused the receiving water to greatly exceed the acute criterion at the outfall, and potentially a considerable distance downstream, because given the concentration of the effluent, it could not have mixed with the receiving water quickly enough to be diluted below the acute criterion.

Susceptibility of the discharge to cleanup/Voluntary cleanup efforts: The effect of highly chlorinated effluent on the receiving water is predominantly acute toxicity to aquatic organisms. This type of discharge is not susceptible to clean up by the Discharger, however it could have been prevented or minimized with proper operation of the facility.

Degree of culpability: The release of chlorinated effluent was an accidental release. The on-duty operator immediately corrected the problem after discovery of the malfunctioning SO₂ feed system. However, the Discharger is culpable for not having adequate controls or redundancy to minimize or avoid chlorine releases. Furthermore, the Discharger is culpable for not adequately training wastewater operators to properly respond to failures of this nature, and for not maintaining sufficient preventive plans and emergency response procedures.

Notification of Violation: The Discharger's Emergency Action Plan did not identify the discharge of highly chlorinated effluent as needing to be reported to OES. In light of the incident, the Discharger issued an internal memorandum to all Utility Division personnel.

Degree of Cooperation/Conduct: The Discharger determined that one of the two SO₂ gas leak detector sensors went into a fault mode, causing the main SO₂ gas feed valve to close. The audible alarm system was not configured to sound an audible alarm unless there was an actual SO₂ gas leak. The Discharger has made necessary modifications to the system to correct this problem. In response to a Notice of Violation, the Discharger also committed to review and update existing standard operating procedures and emergency response procedures by 1 November 2004, including development of preventive and contingency plans and training of personnel with assistance from a contracted Health and Safety professional. Although Regional Board staff have requested the Discharger provide confirmation of completion, the Discharger has failed to provide adequate evidence that it has completed these actions.

Prior history of violations: The Discharger does not have a history of chlorine residual violations. Overall, the Discharger has a relatively good record, with mostly minor violations.

Ability to Pay: The Discharger has not stated nor demonstrated an inability to pay or continue in business if required to remit the liability.

Economic Benefit: The Discharger derived an economic benefit estimated to be not less than \$10,000 for not including necessary alarms and redundant systems to prevent or minimize the release of chlorinated effluent. The plant alarm system was not configured correctly and allowed the main SO₂ gas feed valve to close without sounding an audible alarm. The Discharger promptly made necessary wiring connections to the plant alarm system to correct this problem. The cost of the repairs are not known, but were likely minimal. This modification would have likely minimized the chlorine release. However, additional controls and redundancy are warranted and should have been in place to prevent the discharge of chlorine. The dechlorination system should have in-line chlorine residual monitoring and a redundant SO₂ feed system to safeguard the system.

Other Matters that Justice May Require: Staff costs were estimated to be \$8,000, assuming the ACL was settled without significant negotiations. Staff costs increased an additional \$4,800 preparing for the hearing.

13. A \$120,000 ACL is appropriate based on the determinations in Findings 1 through 12.
14. On 5 January 2005, the Executive Officer issued the Discharger Administrative Civil Liability Complaint No. R5-2005-0500 (Complaint) proposing a \$120,000 Administrative Civil Liability pursuant to CWC section 13385.

15. On 24 January 2005, the Discharger waived its right to a hearing within 90-days in order to engage in settlement discussions. After unsuccessful settlement negotiations, the Discharger submitted a letter on 6 May 2005 requesting a hearing and indicated its intention to propose a supplemental environmental project (SEP). The SEP proposal is for three education and outreach projects to be implemented by the Water Education Foundation. The proposed projects are the revision, printing, and distribution of the *Layperson's Guide to Water Pollution*, production of the *California Water Pollution Facts* booklet, and presentation of two Project WET (Water Education for Teachers) *Healthy Water, Healthy People* workshops. Due to outstanding issues, this Order does not include a recommendation to accept the proposed SEP. However, the Regional Board may consider approval of the SEP during the board hearing. Attachments A and B provide more details regarding the proposed SEP projects, including budgets and time schedules.
16. Issuance of this Administrative Civil Liability Order to enforce CWC Division 7, Chapter 5.5 is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et. seq.), in accordance with Title 14 California Code of Regulations, Enforcement Actions by Regulatory Agencies, section 15321(a)(2).
17. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review this action in accordance with section 2050 through 2058, Title 23, California Code of Regulations. The petition must be received by the State Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions may be found at the State Board web site located at http://www.waterboards.ca.gov/wqpetitions/wqpetition_instr.html.

IT IS HERBY ORDERED that the Discharger shall pay a civil liability of \$120,000 by check, which contains a reference to "ACL Order No. R5-2005-____" and is made payable to the *State Water Pollution Cleanup and Abatement Account*, no later than **17 October 2005**.

I, THOMAS R. PINKOS, Executive Officer do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____.

THOMAS R. PINKOS, Executive Officer